

REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the remarks that follow, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections. The independent claims have now been amended to remove a previously added feature.

Art Rejections:

Claims 1, 2, 6 - 8, 12, and 22 - 24 have been rejected under 35 U.S.C. §102(e) as being allegedly anticipated by U.S. Patent No. 6,766,056, hereinafter *Huang*.

One of the objects of the present invention is to provide an *efficient* method for determining whether or not an image has a specified pattern. In one embodiment, the present invention achieves these goals by selecting a target pixel and selecting at least one related pixel which satisfies a stored first condition and a stored second condition relative to the selected target pixel, and then binarizing the target pixel based upon a color data of the target pixel and that of the at least one related pixel to the target pixel in the image to generate a binarized value. As can be seen in Figures 5 and 6, a target pixel and pixels specifying conditions are illustrated. Only the target pixel and other related pixels satisfying certain conditions are used as the basis for the color data when binarizing the target pixel.

In order to minimize the number of related pixels selected, the present invention includes a storage unit for storing a first condition that defines absolute positions of pixels in the image and a second condition on positions of pixels relative

to a target pixel, and selects at least one related pixel which satisfies the stored first condition and the stored second condition relative to the selected target pixel.

In the previous response, Applicant argued that the threshold determining unit 45 operates on the original input image data before it is sub-sampled, and does not operate on sub-sampled image data. Applicant's remarks from the previous response are incorporated herein by reference.

However, the Examiner interprets *Huang* such that **all** of the pixels 0 – 7 in FIG. 5 are ultimately sent to the thresholding binary buffer 43, and that therefore, the illustrated pixels 0 – 7, including the lag pixels 4 – 7, have already been sub-sampled. In particular, the Examiner bases this conclusion primarily on the statement that “Upon processing current pixel (pixel labelled 0) the pixel is sent to the thresholding binary buffer 43.” Column 7, lines 2 – 4. However, *Huang* never states that **all** of the pixels 0 – 7 that enter the pixel buffer pipe 42 become a “current pixel” and are therefore sent to the thresholding binary buffer 43.

In addition, *Huang* states that “pixels labelled 1 to 7 are yet to be processed as the current pixel”. However, *Huang* again does not state that all of the pixels 1 to 7 that enter the pixel buffer pipe 42 eventually become current pixels. Applicant submits that some of the pixels 1 to 7 may be culled out in the sub-sampling step.

Furthermore, the Examiner's position is directly inconsistent with the *Huang* statement: “Turning to FIG. 5 there is shown a representation of a plurality of consecutive pixels 55, of a **current** scanline of the **input image data** 21, temporarily stored in the pixel buffer pipe 42.” If FIG. 5 represented sub-sampled data, it could not be referred to properly as a **current** scanline of the **input image data**.

Nevertheless, even if the Examiner's position was correct, which Applicant disputes, the independent claims have now been amended to even distinguish over the Examiner's interpretation. For example, the first and second conditions are clarified to show that the conditions relate to the original image data. According to the Examiner's interpretation, the alleged second condition of *Huang* is based on the sub-sampled data, and not on the original image data. Accordingly, even under the Examiner's interpretation, *Huang* does not teach or suggest the claimed invention.

Since the lag pixels do not meet both the first and second conditions, *Huang* does not teach claim 1 as now amended, which now requires a selector for selecting a target pixel included in the image data and also selecting ***at least one related pixel which satisfies the stored first condition and the stored second condition*** relative to the selected target pixel, as those conditions are now defined in the claims.

Accordingly, claim 1 is now patentable over *Huang*. Claims 2, 6, 7, 8, 12, and 22 – 24 are patentable at least for the same reasons.

With regard to claims 3, 4, 9 and 10, *Bloomberg* and *Kanno* do not overcome the deficiencies set forth above with respect to *Huang*.


Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw the rejections of claims 1 – 3, 5 – 9, 11, 12 and 22-24 in view of the foregoing amendments and remarks.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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